Amendments to the Claims:

Please amend claims 26, 35-37 and add new claims 52-58. This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1-25. (Canceled)

26. (Currently Amended) A method of detecting a genetically transmitted ~~immune system dysfunction~~ deficiency in immune cell function in a mammal, wherein the ~~dysfunction~~ deficiency in immune cell function is associated with ~~a glycosylation disorder~~ deficient glycosyltransferase activity, the method comprising:

a) providing a sample from a mammal, wherein the sample comprises a plurality of glycoconjugates;

b) contacting the sample with ~~either or both~~ at least one of:

a first type of diagnostic reagent that binds to a first immune cell glycoconjugate that has an oligosaccharide determinant that: i) is present on glycoconjugates in a sample obtained from a mammal that has the ~~immune system dysfunction~~ deficiency in immune cell function, and ii) is ~~not present~~ absent or is present at reduced levels on glycoconjugates in a sample obtained from a mammal that does not have the ~~immune system dysfunction~~ deficiency in immune cell function; and

a second type of diagnostic reagent that binds to a second immune cell glycoconjugate that has an oligosaccharide determinant that ~~is~~: i) is present on glycoconjugates in a sample obtained from a mammal that does not have the ~~immune system dysfunction~~ deficiency in immune cell function, and ii) is ~~not present~~ absent or is present at reduced levels on glycoconjugates in a sample obtained from a mammal that has the ~~immune system dysfunction~~ deficiency in immune cell function; and

c) determining whether the diagnostic reagent binds to the glycoconjugates in the sample, wherein the binding of a diagnostic reagent of the first type, or the absence ~~of~~ or

reduced binding of a diagnostic reagent of the second type, is indicative of the presence of the ~~immune system dysfunction~~ deficiency in immune cell function in the mammal.

27. (Withdrawn) The method of claim 26, wherein the immune system dysfunction is B lymphocyte dysfunction.

28. (Withdrawn) The method of claim 27, wherein the presence of the immune system dysfunction is associated with reduced binding to a detection reagent which comprises SNA or CD22.

29. (Withdrawn) The method of claim 28, wherein the detection reagent comprises CD22-Ig.

30. (Withdrawn) The method of claim 26, wherein the immune system dysfunction is cytotoxic T cell deficiency.

31. (Withdrawn) The method of claim 30, wherein the presence of the immune system dysfunction is associated with increased binding of a detection reagent which specifically binds to Galβ1-3GalNAc but does not bind to Siaα2-3Galβ1-3GalNAc.

32. (Withdrawn) The method of claim 31, wherein the detection reagent comprises PNA lectin or Jacalin.

33. (Withdrawn) The method of claim 30, wherein the presence of the immune system dysfunction is associated with reduced binding of a detection reagent which specifically binds to α2-3-linked sialic acids.

34. (Withdrawn) The method of claim 33, wherein the detection reagent comprises a MAL II lectin.

35. (Currently Amended) The method of claim 26, wherein the ~~immune system dysfunction is myeloid deficiency~~ deficiency in immune cell function is a deficiency in myeloid cell function.

36. (Currently Amended) The method of claim 35, wherein the presence of the ~~immune system dysfunction~~ deficiency in immune cell function is associated with reduced binding to a ~~detection~~ second type of diagnostic reagent which specifically binds to Core 2 type O-glycans.

37. (Currently Amended) The method of claim 36, wherein the ~~detection~~ diagnostic reagent comprises an antibody ~~selected from the group consisting of B220 and 1B11~~ that specifically binds to an immune cell surface protein selected from the group consisting of a CD45 isoform and a CD43 glycoform.

38-51. (Canceled)

52. (New) The method of claim 35, wherein the deficiency in myeloid cell function is reduced neutrophil recruitment to sites of inflammation.

53. (New) The method of claim 26, wherein the plurality of glycoconjugates are on a cell.

54. (New) The method of claim 53, wherein the plurality of glycoconjugates are on an immune cell.

55. (New) The method of claim 54, wherein the immune cell is a lymphocyte.

56. (New) The method of claim 54, wherein the immune cell is a CD43+ myeloid cell.

57. (New) A method of diagnosing a deficiency in an inflammatory response resulting from a deficiency in core 2 GlcNAc transferase activity in a mammal, the method comprising detecting a Core 2 type O-glycan moiety on an immune cell from a sample of the mammal, wherein a deficiency in an inflammatory response is indicated by detecting a reduced presence of the Core 2 type O-glycan moiety on the immune cell in comparison to a sample from

a mammal without a deficiency in an inflammatory response resulting from a deficiency in core 2 GlcNAc transferase activity.

58. (New) The method of claim 53, wherein the reduced amount of the core 2 type O-glycan moiety on the immune cell is detected using one or more antibodies that specifically bind to an immune cell surface protein selected from the group consisting of a CD45 isoform and a CD43 glycoform.